



Fit for 55... **and** **what next?**

Proposals for the
2024-2029 mandate

WHITE PAPER

SUMMARY

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EDITORIAL

A POWERFUL AND DECARBONISED EUROPE

It was Europe, before any other continent, recognised the danger of climate change and took action to combat it. Over the past 30 years, the Union has steadily increased its efforts. The European Commission, led by Ursula von der Leyen, stayed firmly on track. As soon as she took office, she launched an ambitious project: carbon neutrality for Europe by 2050, with the first set of measures aimed at reducing greenhouse gas emissions by more than 50% by 2030 compared to 1990 levels. “Fit for 55” is the first objective of the European Green Deal, which also aims to protect nature and reduce waste.

A considerable amount of legislative work was done in a very short time. It’s now up to the Member States to incorporate the new provisions into their laws, and to apply them! In the meantime, Europe has faced the Covid pandemic, the war in Ukraine, and the gas shortage: major crises that made it necessary for the EU to adapt its strategy and put energy independence and industrial competitiveness back at the forefront of its priorities. Europe is learning that to remain a consumers’ heaven, its domestic production needs to be ramped up.

A new, more brutal world is emerging, with its tigers. Global trade is fragmenting and its rules are more and more challenged. Europe is at a crossroads. It can either be rocked by any event and end up losing focus and putting aside its climate ambitions, or it can adapt and deploy a climate, energy, and industrial strategy that would ensure the repowering of its economy in its efforts towards carbon neutrality. This is the challenge the next EU mandate will have to face.



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To succeed in this strategy, European institutions will have to be action-oriented and translate objectives into concrete achievements. Several major industrial projects that will play a key role in decarbonisation will have to be implemented: developing new low-carbon energy sources, renovating the EU building stock, phasing out fossil fuels in transport, and supporting the ecological transition of the agri-food industry. It will be necessary to determine what is the best use of biomass and how to effectively manage the carbon resource. With electrification being bound to play a crucial role in the energy transition, the EU will also have to make peace between renewables and nuclear power. Finally, adaptation to climate change will have to become part of Europe’s strategy.

We trust Europe can meet the task. Doubters have often predicted its failure – or even its imminent demise – when struggling with difficult times. But the EU has always been able to walk a fine line and rise to the challenge.

In an uncertain and changing world, it is more important than ever that we Europeans unite, so we can withstand crises, reject violence, and build the powerful, prosperous, sustainable, and secure Europe to which our fellow citizens aspire.



PREAMBLE



The current European Commission, led by Ursula von der Leyen, has been in place since December 2019, in 2024, a new executive will be elected, once the European Parliament is convened. This Commission's mandate has been marked by the priority placed on energy and climate issues in the form of the European Green Deal put forward by its President.

Several dozen draft texts – directives, regulations and implementing acts – have followed, some of which are still being finalised. For the Commission, it was “the most important climate package ever put forward by any political entity in the world”.

Climate concerns have been compounded by the impact of three major crises in quick succession: the Covid epidemic in 2020, the gas crisis in 2021, and the war in Ukraine starting in 2022. In the light of these events, the European Commission, Parliament, and Council have had to broaden the scope of their work and address the issues of secure energy supplies and energy sovereignty with greater urgency.

There is no doubt that these issues will remain paramount during the next mandate. The European institutions will have to find a way to reconcile the fight against climate change – which will in any case remain a primary concern – with the defence of European interests in the context of a new geostrategic balance and of the war in Ukraine. In this highly sensitive context, the issue of energy will remain central, and it is important that future European leaders have in-depth knowledge and form their own opinions on the subject.

EdEn, which has been working for over 12 years to find ways of reconciling climate action with the need to maintain economic activity and standards of living, puts forward its contribution to the debate with this White Paper. It does so without complacency or political affiliation, by taking stock of the considerable work carried out at European level during the mandate of office that is now coming to an end. On the basis of this assessment, and in view of the challenges Europe faces today, it proposes priorities and policy recommendations to follow over.





SUMMARY



As soon as the EU mandate started in 2019, the European Commission launched *the Green Deal*, a wide-ranging programme aimed at revising EU legislation and putting in place new initiatives to ensure that EU policies are in line with climate target of reducing greenhouse gas emissions by 55% in 2030 compared to 1990 levels, as agreed with the Council and the European Parliament. This target is a step towards the goal of achieving climate neutrality by 2050.

This programme has been at the heart of European energy policy throughout the mandate of office now drawing to a close. Considerable resources have been mobilised at the Commission, Member State, and Parliament levels to put together dozens of draft texts, a task made even more complex by the Covid and gas crises and the war in Ukraine.

At a time when we are beginning to reflect on our priorities for the next European mandate, it is reasonable to ask questions about the results achieved and the merits of the directions taken via this legislative package. Energy will remain a key component of any European policy. It directly affects policies in other sectors of economic life, particularly construction, industry, and transport. European energy policy remains difficult to formulate and implement, as it falls within the shared competences of the European institutions. Regardless, energy is the basis of all economic activity, and the current geopolitical and environmental context makes this issue more sensitive than ever.

WHAT CONCLUSIONS CAN WE DRAW FROM FIT FOR 55?

It is too early to assess the results of the Fit for 55 initiative. However, we can already point to a number of positives.

Europe's greenhouse gas emissions are on a downward trajectory and have reached in 2023 a reduction of over 30% compared to 1990 levels. However, this rate of decline would have to be more or less doubled to bring them into line with the 55% target set for 2030.

The price of CO₂ on the European carbon quota market has become a significant component of economic governance; it now seems to have stabilised at around €80/tCO₂, well above the lows seen in the past, though still far from sufficient to economically justify many of the actions that will be needed to achieve climate neutrality.

The European Commission was aware of the consequences that this rise in carbon prices could have on the competitiveness of European economies and, on its proposal, it was decided to establish the Carbon Border Adjustment Mechanism (CBAM), designed to restore fairness for countries that have not yet decided to set up mechanisms similar to the EU ETS.

In terms of concrete actions, the main success of European policy has been accelerating the transition to electric mobility for light vehicles, supported by measures to stimulate the European battery industry. The ReFuelEU Aviation and FuelEU Maritime regulations have also created a legislative framework for decarbonising air and sea transport.

European institutions also deserve credit for their initiatives in response to the situation created by the war in Ukraine – even if some thought them late or

insufficient, notably the REPowerEU plan, following the outbreak of the conflict, as well as the draft Net-Zero Industry Act (NZIA), a response to the *Inflation Reduction Act* signed into law on 16 August 2023 by the President of the United States.

Despite the positives, Fit for 55 has not been faultless. The initiative's fundamental weakness is that it remains focused on the two traditional areas of European policy set out in Article 194 of the Treaty on the Functioning of the European Union (TFEU): energy saving and development of renewable forms of energy. In the Commission's estimation, these two areas of action were sufficient to achieve the established emissions reduction target. As a result, it proposed very ambitious targets for these two points – targets which will likely be difficult to achieve.

On the other hand, it has not taken sufficient account of the fact that the most effective way to reduce CO₂ emissions is to decarbonise energy systems, from production to consumption. Making energy sources virtually carbon-neutral will also help fight climate change and reduce dependence on imported fossil fuels. However, decarbonisation is taking place very slowly; according to Eurostat, it has taken more than 20 years to reduce the share of fossil fuels in the gross energy available in the EU from 80% (in 2000) to 70% (in 2022).

The priority should have been to promote all carbon-neutral or virtually carbon-neutral energy sources, in particular the production and use of low-carbon electricity, whether from renewable or nuclear sources. European statistics show that the share of electricity in the EU's final energy consumption has stagnated at 22%, the same level as 10 years ago. **Without significant investment in electrification, decarbonisation of end uses will not happen.**

This relative reluctance to come out clearly in favour of promoting electrification seems to reflect the fear of being associated with a revival of nuclear energy, which was never really considered by the outgoing Commission. This mistrust of nuclear power – which was finally allowed into the green taxonomy¹ by the back door, subject to certain reservations – will remain a weak point in the Commission’s action plan, despite the fact that it is increasingly clear that nuclear generation is not only necessary as a baseline to decarbonise the electricity mix and to stabilise the electricity network, but can also help reign in market volatility in the face of intermittent renewable energies and gas supplies whose prices can rise considerably.

By concentrating on energy saving and renewable energies, the Commission has shifted from the objective of reducing emissions to that of developing renewable energies alone, to the detriment of the low-carbon contribution offered by nuclear power, to the point of encroaching on the right of Member States to choose between energy sources and to determine the general structure of their energy supply.

The electricity network itself was another major omission from the *Fit for 55* plan; it only received attention at the end of the mandate, with the organisation of a forum in September 2023 and the subsequent publication of an action plan². However, without modernising, expanding, and digitising the network, it will be difficult to achieve our climate objectives

It was also rather belatedly, and under the pressure of global events, that the European Commission decided to concern itself with Europe’s energy sovereignty and the preservation of its industry. However, the setbacks experienced by the European photovoltaic industry should have reminded us that there can be no energy policy without an industrial policy, and that there is no point in prioritising a given sector if the development of that sector creates dependencies as strong as those we intend to avoid. The Commission’s proposed strategy of importing some 10 Mt of hydrogen by 2030 is susceptible to the same questions.

Clearly, Europe was not prepared for the shock of war in Ukraine. Its energy policy was based on a dogmatic belief in open markets and an assumption that competition alone would bring prosperity. The only place for state intervention was in the development of renewable energies and the search for energy saving based on a single principle: *“Energy efficiency first”*.

➤ **The return of energy security and industrial sovereignty to centre stage marked the beginning of a major shift in the European model.**

1. *I.e.*, in application of Article 10(2) of Regulation (EU) 2020/852 on the European Green Taxonomy.

2. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS – COM(2023) 757 (28.11.2023).

WHAT SHOULD BE THE GUIDELINES FOR EUROPEAN ACTION OVER THE COMING MANDATE?

The most important thing now is to take action.

There is no question of abandoning the *Fit for 55* plan, for which so much effort has been mobilised. Nevertheless, we must consider that the number and complexity of these documents has led to a certain weariness. There is no shortage of reasons for citizens to be annoyed: in addition to *Fit for 55*, there are the measures regarding the circular economy and the protection of biodiversity, as well as all the regulations relating to increased environmental protection. It's a lot to put on the shoulders of less well-off Europeans. Populist protest movements are popping up across the EU. These groups challenge – sometimes violently – what they deem to be a technocratic EU, which they believe cause unnecessary inconvenience to people's daily lives. They must be treated with caution.

It's not just a matter of dreaming up a new *Fit for ___*; we must prioritise building on the achievements of *Fit for 55* by taking concrete actions that make sense for people.

These actions must be built around five main guidelines which should be included in the regulation on the governance of the Energy Union and climate action³.



3. Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action.

➤ **The first guideline must be the unambiguous reaffirmation of the priority assigned to reducing emissions and thus to decarbonising energy systems.** It is the “Emissions reduction first” principle that must guide our actions.

In doing so, it is important that we recognise and accept the diversity of energy sources, particularly nuclear and renewable, and to ensure that the priorities of certain Member States do not stand in the way of those adopted by other Member States. It's a question of efficiency, but also of understanding, goodwill, and solidarity between the nations that make up the EU.

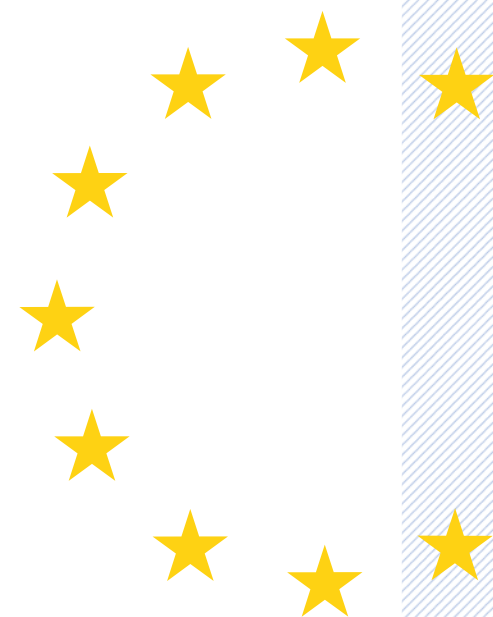
We also need to put the development of electricity networks at the heart of European energy policy. They are the best tool for making the most of renewable energies and exploiting synergies between Member States with a view to decarbonising energy systems.

➤ **The second line of action is to recognise that Europe is not in control of climate change, that it is now almost inevitable, and that we must therefore prepare for it,** with an adaptation programme commensurate with a possible rise in temperature of up to 4°C. Such warming will affect Europe unevenly, and its consequences are likely to bring dramatic changes to the living conditions of a significant proportion of the population. We must anticipate this.

➤ **The third line of action is a direct result of the changing geostrategic context of recent years. Energy independence and industrial sovereignty must once again be treated as serious concerns in the definition of energy policies.** This third line of action is largely in line with the first. It involves withdrawing as quickly as possible from dependence on fossil fuels without – as we have already emphasised – creating new dependencies that we cannot control. More generally, it obliges us to clarify the concept of “open strategic autonomy” such that, without cutting ourselves off from the rest of the world, we Europeans can be more realistic and take measures to protect and support the sectors we consider essential, particularly in the field of energy.

➤ **The fourth concern is preserving economic activity and, more generally, preserving the prosperity of the nations embarking on the energy transition.** This is an essential condition for public acceptance of the considerable effort required to transition away from fossil fuels. We now realise that the energy transition will require significant financial outlays. In its special report of June 2023⁴, the European Court of Auditors adopts McKinsey's estimate of €1,000 billion of investment per year for 30 years to achieve carbon neutrality by 2050. This unprecedented effort will have to be financed and accepted. The downsizing of economies advocated by some is not a solution, so we need to ensure, particularly in the industrial and transport sectors, that the measures imposed do not result in a loss of competitiveness leading to a decline in activity.

➤ **Finally, we must take much greater account of the very difficult situations in which rising energy prices have placed a growing proportion of the population.** This raises the problem of how to redistribute the sums collected via the mechanisms put in place as part of *Fit for 55*, in particular through the extension of the EU ETS to the construction and transport sectors. Both the next Commission and the Member States must, under Parliament's supervision, ensure that these mechanisms operate transparently and effectively, particularly those governing the new Social Climate Fund.



4. EUROPEAN COURT OF AUDITORS – Special report 18/2023: EU climate and energy targets – 26 June 2023.

A SECTOR-BASED APPROACH TO AN ACTION-ORIENTED POLICY

This balanced policy, driven by the quest for efficiency, will have to be applied to various sectors of the economy in accordance with the principles set out above.

The building sector

The building sector will remain a priority. Two concerns need to be reconciled:

► the first is the long-term need to improve the quality of buildings, which is relatively poor in most European countries. Such a policy is necessary. It's not just a question of energy efficiency; it's also about providing decent housing for everyone and improving comfort. However, the sums involved are considerable. We cannot devote all available resources to this issue, and we must not systematise the complete renovation of housing stock, which would require enormous resources. It must necessarily be spread over time;

► the second is a direct response to the climate emergency, aimed at accelerating the decarbonisation of heating and hot water production systems. We already have available solutions; these essentially involve using renewable heat and electricity, gradually phasing out the use of fossil fuels. Much is expected of the Commission in terms of promoting heat pumps, which have been recognised as a strategic technology and regarding which the Commission has launched a consultation. It will be up to the next Commission to learn from this and propose concrete actions in an action plan that goes beyond simply listing objectives. In particular, it will be necessary to remove the obstacles that are holding back the choice of electric solutions, including heat pumps. Calculating electricity consumption as primary energy, a mechanism whereby it is increased by a flat-rate factor, has the

effect of lowering the energy performance of the homes concerned. This is a powerful incentive in favour of fossil fuels – one to which we must quickly put an end at European level.

The industrial sector

In the industrial sector, Europe is a much-coveted market. It has very strong assets in terms of skills, expertise, and technical competence; however, in many countries these assets have been neglected. Clearly, Europe was not prepared for the serious events it now faces. Europe has the economic and strategic capacity to meet these challenges, but convergence towards concerted action is too slow and procrastination on pan-European decisions is undermining European integration.

Nature never tolerates a vacuum, and the Member States are stepping into the breach with national policies – sometimes to force Europe to act, sometimes to take matter into their own hands. This is a matter of urgency. Europe's governance must face up to the new industrial challenges and align its fundamental interests within the required timeframe. It has the skill and the strength to do this. **Whatever direction it takes, particularly in terms of industrial and energy policy, Europe needs to adapt its governance to a world shaped by crises and emergencies.**

The transport sector

In the transport sector, it is obvious that we must maintain and build on the momentum assigned to electric vehicles during the current mandate. We need to make electric mobility accessible to all, continue to develop charging infrastructure on a pan-European basis, and ensure technological



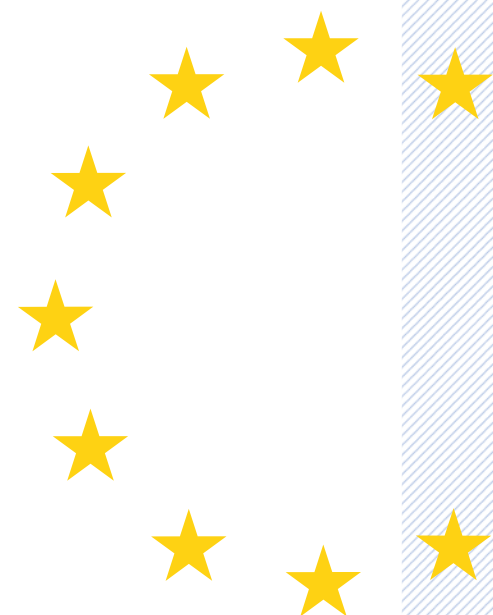
and industrial independence with respect to vehicle and battery manufacturing. Many European citizens still have doubts about the decision to phase out the use of fossil fuels for new vehicles from 2035. This is a major decision, and one that needs to be understood, accepted and, above all, prepared for. Electric mobility must become commonplace and must be easy and convenient for everyone to use.

The next Commission will have to bring the issue of heavy-duty vehicles to a successful conclusion, giving priority, without dogmatism, to the solutions that will make it easiest to phase out fossil fuels. Battery-powered solutions are likely to be the most appropriate, with suitable charging infrastructure and the possibility of installing continuous charging systems (*called* Electric Road Systems or ERS) along major routes, without excluding renewable fuels, which are complementary to the electrification of the sector – in particular for agricultural and construction equipment.

The air transport sector will require particular attention. Whether it is beneficial at all is a matter of debate. Regardless, it is clear that air transport contributes to economic development and to bringing people closer together. This is one of the many ways in which we can gradually build a European identity and sense of belonging among our citizens. The challenge now is to give substance

to the decarbonisation strategy defined by the ReFuelEU Aviation regulation and to ensure that a European ecosystem for the production and distribution of Sustainable Aviation Fuels (SAF) is established. Such an ecosystem should enable the European aviation industry to secure sustainable fuel supplies while limiting the use of imported fuels, without losing competitiveness in relation to airlines and airports operating in third countries. This means drawing up master plans for each Member State, which the European Commission should encourage, as well as increasing support at European and national level for the development of new SAF production and distribution channels.

Along with the manufacture of batteries, heat pumps, and electrolyzers, the production of SAFs is recognised as a strategic area in the NZIA regulation on a net-zero industry. One of the challenges for the next mandate will be to go beyond procedural measures aimed at developing these areas and to provide new projects with tangible financial support, comparable to that provided by the American IRA and calculated simply according to each project's impact on greenhouse gas emissions.





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Carbon management

As we support industries contributing to the reduction of CO₂ emissions, we will have to continue – and even increase – our support for carbon capture and storage (CCS) and carbon capture and utilisation (CCU). These technologies will be essential for decarbonising certain industries (cement, steel, and chemicals). They will also make it possible to recover the carbon resources needed to manufacture synthetic fuels. We must therefore continue to support them and to remove the obstacles to their development.

Networks

Electricity networks will continue to be a key factor in the energy transition. The development of electricity networks and storage facilities is essential to ensure the security and availability of electricity supply, to adapt to new uses for electricity – such as electric mobility, and to enable the successful integration of renewable energies. Networks will also have to respond to people's aspirations for greater energy autonomy, without losing sight of the need to achieve optimum economic efficiency


in energy systems. The stakes are very high, since the European Commission has estimated that the investments needed to adapt Europe's electricity networks between 2020 and 2030 will amount to €584 billion⁵.

This assumes that network operators have the possibility – and the financial resources – necessary to take initiatives to meet their development needs, including by anticipating investments if necessary, and that the regulatory principles allow them to do so. Virtually everywhere in Europe, pricing structures will have to evolve to take better account of the value associated with guaranteed power.


The prerogatives conferred on local authorities, particularly in the form of energy communities, create areas of possible overlap with those of network operators. However, the development of these communities depends on public networks to connect their various members, to guarantee collection and transmission services, and to ensure long-term acceptability. European regulations and their implementation in the Member States will have to ensure that public networks remain the essential infrastructure on which the development of energy communities is based.

5. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, AND THE COMMITTEE OF THE REGIONS – Digital transition of the energy system – COM(2022) 552 (18 October 2022).

CONCLUSION



In conclusion, it is clear that energy will continue to play a central role during the next mandate of the European institutions. The challenge for the new leaders will be to complete the complex legislative framework created under *Fit for 55*. Above all, they will have to design and support concrete actions within the framework and in compliance with the principles set out above, in order to achieve the objectives outlined for 2030 and 2050.



EdEn's recommendations are grouped below into 35 lines of action, some of which are broken down into several items – explaining both the context they are based on and the objective they aim to achieve.







35 AREAS OF ACTION

1

GENERAL POLICY
GUIDING PRINCIPLES

1 ➤ Europe must reaffirm and reinforce the priority assigned to reducing greenhouse gas emissions through concrete measures to implement *Fit for 55*. Wherever reasonably possible, we must favour actions that reduce emissions and free us from fossil fuels. “*Emissions Reduction First*” must be the guiding principle for the new mandate.

2 ➤ Europe must promote, without discrimination, all actions that contribute to reducing greenhouse gas emissions. To this end, paragraph 1(c) of Article 194 of the Treaty on the Functioning of the European Union (TFEU) should be amended to include the priority assigned to combating climate change, to enshrine the principle of neutrality in the development of very low-carbon energy sources, and to bring the European energy policy statement into line with the objective of reducing emissions.

3 ➤ In accordance with Article 194(1)(b) of the TFEU, Europe must recognise that ensuring secure energy supplies is an essential responsibility, define criteria and objectives for energy independence, ensure that these are respected, and refrain from supporting actions which would create new dependencies outside of our control.

4 ➤ Following on from the NZIA initiative, Europe must make resilience and industrial sovereignty a greater priority. It must rebuild Europe’s industrial sovereignty and put in place, through regulatory and financial means – including at its borders – a recovery programme that can be rolled out in all European countries that wish to participate.

5 ➤ The energy transition will require an unprecedented financial investment. When defining actions, Europe must give priority to efficiency and encourage actions that enable the fastest possible progress towards the objectives set, while preserving economic growth.

6 ➤ Climate change adaptation is becoming an increasingly urgent issue, and the plan set out in the Green Paper presented by the Commission to the Council in June 2007 needs to be fully updated, with the goal of developing a *Fit for +4°C* adaptation plan.

7 ➤ Europe must quickly conclude its ongoing work on the development of the wholesale electricity market by adopting provisions that will ensure the financing of the necessary infrastructure, stabilise prices, and provide transparency for stakeholders, while leaving Member States a wide margin to manoeuvre with respect to the organisation of retail markets.

8 ➤ The *Fit for 55* initiative has led to the introduction of new obligations and levies that will weigh heaviest on those consumers who are least well-off. It is essential that the next mandate establish a social climate plan with a scheme for redistributing the amounts collected to those most vulnerable and to those companies whose path to decarbonisation is the most difficult.

2

DECARBONISING AND SECURING ENERGY SECTORS WHILE MAINTAINING THEIR COMPETITIVENESS

9 > In an area where each Member State must remain free to make its own essential choices, Europe must act as an impartial point of reference. **It should allow low-carbon electricity generation, whether renewable or nuclear, to develop without regulatory or financial discrimination.** A return to a climate of peaceful co-existence between the development of nuclear and renewable energies at the level of the European institutions is one of the key challenges for the next mandate.

10 > With the phase-out of fossil fuels, new forms of secondary energy – hydrogen, biogas, biofuels, synthetic fuels – will become increasingly important. **The next Commission will have to rigorously assess the practical feedback from** these new sectors in order to adjust the guidelines adopted during the current mandate, if necessary.

11 > **The question of biomass resources and their optimal use is essential.** The Commission will have to update the resource inventories already conducted and put forward priorities for their allocation.

12 > Research into the economic and technical viability **of technologies based on renewable heat sources, particularly geothermal heat, should be carried out in greater depth.**

13 > **Electricity remains the only form of energy with almost universal application.** The long-expected development of new uses for electricity has never really begun, with the exception of electric vehicles. Following the example of the automotive sector, the next Commission will have to propose a clear, proactive policy to promote electrification.

3

THE BUILDING SECTOR

14 ➤ **Optimise the use of available financial resources:** encourage the rapid transition of heating systems towards low-carbon solutions, renewable heat, and/or electric solutions, accompanied by efficient regulation and control systems, without systematically prioritising deep renovation.

15 ➤ **Accelerate the transition to low-carbon solutions:**

- also take CO₂ emissions into account when determining the energy and environmental performance of buildings;
- calculate the energy performance of buildings on the basis of final energy consumption rather than primary energy consumption, the conventional calculation of which favours fossil fuels;
- launch a plan for the mass deployment of heat pumps, combining the promotion of their use, the development of new technologies for large residential buildings, industrial development, and the training of professionals.

16 ➤ **Continue the fight against energy poverty.**

4

THE LIGHT ROAD TRANSPORT SECTOR

17 ➤ **Continue the roll-out of charging infrastructure:**

- accelerate the development of charging stations accessible to the public, particularly on seasonal corridors, while reinforcing the minimum power capacity provided for in the AFIR regulation;
- facilitate the installation of charging infrastructure in large residential buildings via regulations and the introduction of incentive schemes;
- encourage local authorities to set up charging stations for taxis and other EV users who do not have parking spaces at home or at work;
- at the same time, encourage hypermarkets, supermarkets, and retail outlets to install charging stations.

18 ➤ **Improve the quality of charging services for electric vehicles:**

- require the deployment of devices to control charging in order to encourage the consumption of renewable electricity and limit power demand during peak hours;
- encourage the public availability of open data on charging points.

19 ➤ **Continue investment in research and development:**

- encourage investments in R&D for *vehicle-to-home* (VtoH) or *vehicle-to-grid* (VtoG) technologies, in order to exploit the potential flexibility offered by vehicle storage capacity;
- continue to invest in research and development on new battery chemistries and recycling.



THE HEAVY ROAD TRANSPORT SECTOR

20 ➤ Facilitate the transition of heavy-duty vehicles (HDVs) to electric mobility:

- authorise an increase in the GVW of vehicles to account for the extra weight of batteries;
- develop high-power fast-charging stations along major routes, as studied by the CharIn consortium;
- evaluate continuous vehicle charging systems (known as *Electric Road Systems*, or ERS) through pilot programmes covering shorter distances, and standardise their characteristics at European level.

21 ➤ Maintain the optional use of renewable fuels (BioNGV in particular), provided that their use in HDVs does not compete with essential uses.



THE AIR TRANSPORT SECTOR

22 ➤ Develop a European ecosystem for sustainable aviation fuels (SAF):

- promote the establishment, in each Member State, of a master plan for the development of the production, transport, and distribution of SAF in line with the ReFuelEU Aviation regulation;
- encourage the emergence of new, advanced technologies that are still in the early stages of development;
- coordinate the establishment of master plans with those relating to electricity production, electricity networks, hydrogen production, and industrial CO₂ recovery.

23 ➤ Preserve the competitiveness of European airlines:

- strengthen support measures for decarbonisation of the aviation sector by increasing the reserve allocated to SAF up to 2030 and introducing a new support system after that date;
- establish a system for earmarking the proceeds from the auctioning of aviation carbon allowances to decarbonise the aviation sector;
- schedule the investments needed to achieve the objectives for decarbonising ground operations, in order to give European airports the transparency they need.

24 ➤ Adapt the Single European Sky regulation: reach an agreement on the development of the Single Sky during the next mandate.

7

THE INDUSTRIAL SECTOR

25 ➤ **Provide more support for innovation:**
Make the Innovation Fund the preferred tool for supporting innovation programmes in key technologies, in parallel with the acceleration of procedures made possible by the NZIA regulation.

26 ➤ **Restore the balance of trade:**

- clearly define which markets the EU decides to keep open and which it decides to protect;
- introduce a preferential system in sectors deemed sensitive, to protect them from foreign competition not subject to the same requirements as in Europe;
- ensure that the principle of reciprocity is respected in trade between the EU and third countries in order to re-establish fair market conditions.

27 ➤ **Move towards a low-carbon industry:**

- end the debate between nuclear and renewable electricity (see recommendation 9);
- support the introduction of measures to facilitate the establishment of long-term, predictable electricity contracts for industry, (see recommendation 7);
- plan for the emergence of green energy industries in Europe, in particular by creating a dedicated European fund.

8

DEVELOP THE CCU AND CCS SECTORS

28 ➤ **Facilitate the development of the CCS sector:**

- fully integrate CCS technology into European energy and climate strategies, as a complement to improving energy efficiency and the transition to low-carbon energies;
- continue to support the CCS chain at the European level until the value of CO₂ allowances reaches a sufficient level.

29 ➤ **Facilitate the emergence of the CCU sector:**

- postpone the limit on the utilisation of recycled carbon for the production of synthetic fuels from plants built before 2035 until 2040;
- support pilot Direct Air Recovery (DAR) operations, in Europe or under the control of European players, in order to master the technology.

30 ➤ **Define a European framework for the cross-border transport of CO₂,** in line with the London Protocol on the Prevention of Marine Pollution (1996).

9

FACILITATE THE DEVELOPMENT AND ADAPTATION OF **ELECTRICITY NETWORKS**

31 ➤ Support the promotion of electricity and renewable energies with an action plan for electricity networks, comprising a set of measures aimed at developing an efficient, robust electricity network operated by a skilled workforce:

- rethink the resilience of the electricity system on a European scale to respond to changes in production and consumption and to cope with the intensification of climate change;
- develop storage technologies and capacities at different levels of the energy chain, including for thermal energy storage;
- develop and promote flexibilities, in particular through demand management;
- promote the digitisation of the electricity system, taking advantage of existing tools (smart meters) and defining a harmonised framework to strengthen cyber security;
- develop skills, in particular by helping create training courses that meet the needs of the power distribution industry.

32 ➤ Adapt the criteria used by regulatory bodies to assess the management of network operators, applying a more forward-thinking regulatory approach:

- anticipate investments in the electricity network: physical and digital infrastructure, financing of a skilled workforce, etc.;
- establish a detailed European plan for electricity networks to support an electrification strategy;
- adapt the criteria used by regulators to assess network operators to take better account of the needs of industry and to facilitate innovation.

33 ➤ Under the 2028-2034 Multiannual Financial Framework (MFF), mobilise the financial resources needed to modernise and develop networks:

- following on from the Strategic Technologies for Europe Platform (STEP) initiative of June 2023, create a sovereignty fund designed to support investment in clean technologies, including network technologies;
- encourage the introduction of tariffs based more on the power guaranteed by the network.

34 ➤ Facilitate and accelerate the deployment of electricity networks via expansion or in light of the NZIA regulation, by ensuring the development of a solid industrial base.

35 ➤ Define the areas of responsibility of the new and existing players in the energy transition, in particular to determine who is liable in the event of a supply disruption, and define principles for remuneration and redistribution of revenue

ABOUT EDEN



Founded in 2010, the goal of *Équilibre des Énergies* is to help decarbonise.

The members of EdEn are all involved in the energy, construction, and mobility sectors, and are part of the economic fabric of France and Europe: major industrial groups, SMEs, VSEs, trade unions, professional federations, tradespeople, and consumer associations. All promote innovation and industrial excellence to reduce greenhouse gas emissions. They are working to gradually transition away from dependence on fossil fuels. Together, they bring their expertise and experience to bear in proposing practical solutions that are feasible and acceptable in view of the economic realities of their sector.

EdEn' recommendations to French and European decision-makers are based on recognised economic and technical expertise derived from the work of its scientific committee.

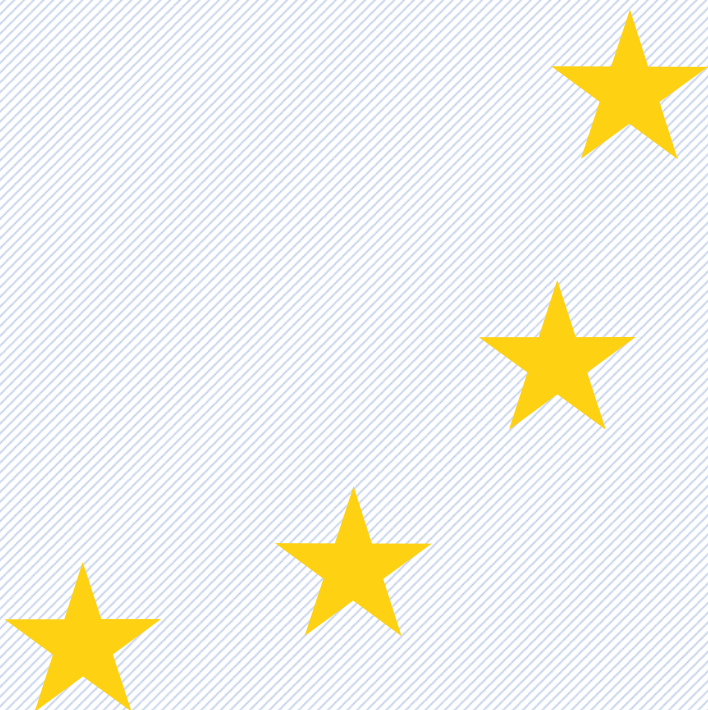
EdEn's mission

EdEn is helping to prepare for a carbon-neutral world by 2050 and a society more resilient to the consequences of climate change.

As such, EdEn recommends measures to French and European decision-makers in the fields of energy, construction, and mobility policy, in order to transition away from fossil fuels and help our societies adapt to climate change.

EdEn's members





The White Paper is also available in digital format:



Français



English

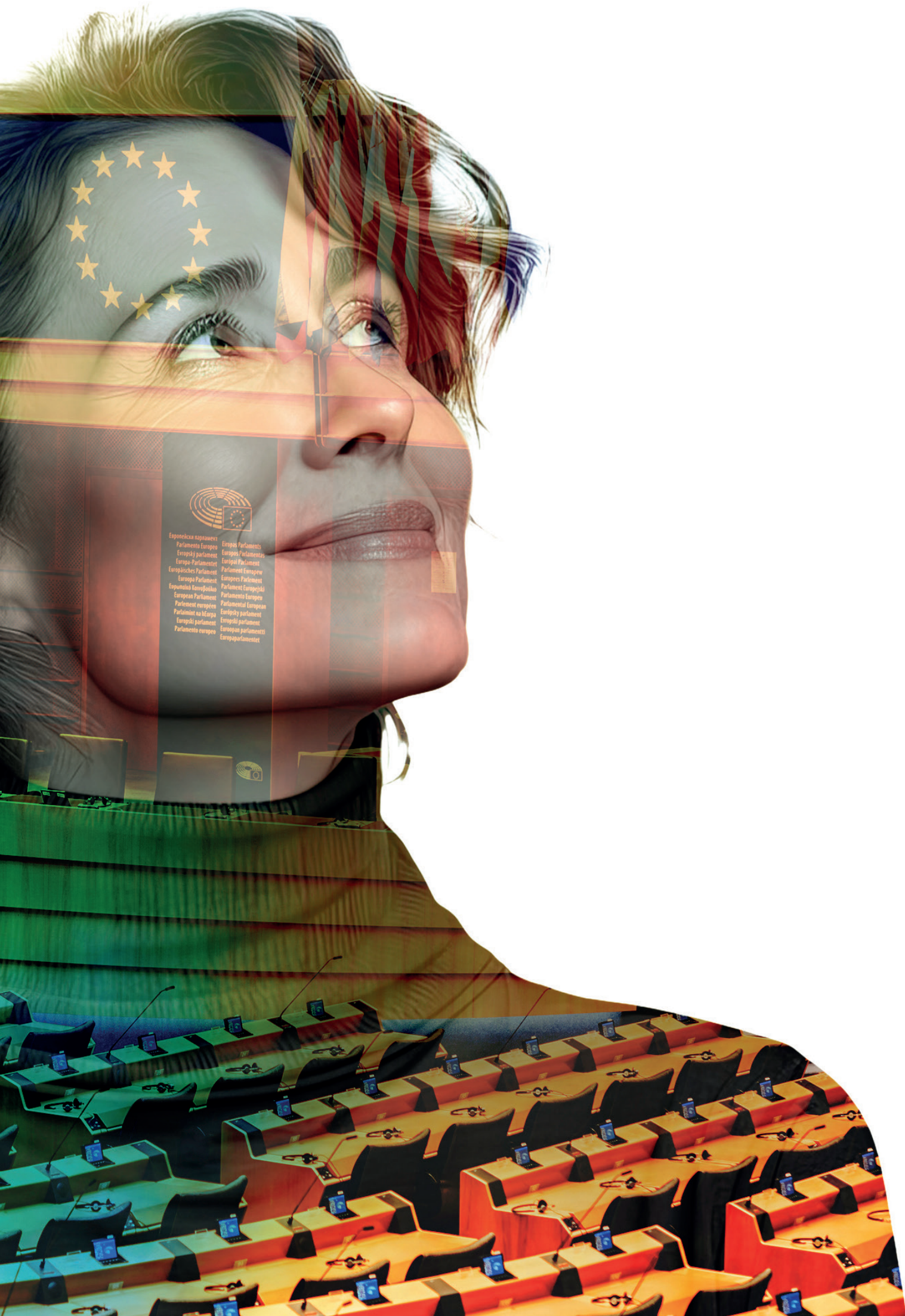
EdEn would like to thank all the members
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